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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/650,151	08/27/2003	Gregory Frank Carlson	10030414-1	7046

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EXAMINER

LAM, CATHY FONG FONG

ART UNIT	PAPER NUMBER
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1775

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	01/08/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

10/650,151

Applicant(s)

CARLSON ET AL.

Examiner

Cathy Lam

Art Unit

1775

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 18 October 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10, 12, 13 and 22-30 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1, 3-7, 10, 12-13, 26-30 is/are rejected.
- 7) ☒ Claim(s) 2, 8, 9 and 22-25 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date: _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date: _____ | 6) <input type="checkbox"/> Other: _____ |

In view of the amendment and remarks filed on October 18, 2006, the drawing objection and 112 rejections have been withdrawn. The claims are continue to be unpatentable as following:

Claim Rejections - 35 USC § 112

1. Claims 8 and 26 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 8 and 26 are vague and indefinite, as it is unclear whether the locations that hold the conductive polymer dots also hold the non-conductive polymer dots. It is unclear whether the dots are mixture of conductive and non-conductive polymer dots? What is the conductivity of the dots in the end?

Claim Rejections - 35 USC § 103

1. Claims 1, 3-7, 10, 12-13, 26-30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jacobsen et al (US 6468638) in view of Verlinden (US 6861136).

Jacobsen disclose an electronic assembly comprised of a substrate (12), row/column interconnecting lines and a plurality of blocks (14) (col 2 L 15-19). The electronic assembly is particularly useful as a transistor (col 2 L 4-5).

Recesses or holes are formed in the substrate before the blocks are formed onto the substrate (col 6 L 28-34). The blocks may each contain a circuit component (col 2 L 11-16, L 45-47 & col 5 L 23-24). The examiner takes the position that the recesses or holes are equivalent as the claimed wells.

The blocks (14) are deposited onto the substrate (12) through FSA (or fluidic self assembly) process that is a fluid transporting process such that the blocks rest in the corresponding openings in the substrate (12) (col 2 L 55-60 & col 6 L 48-49). The examiner takes the position that the FSA process resembles a chemical treatment that limit the sizes of the blocks.

An interconnecting layer is deposited over the substrate and the blocks to make electrical connection through conductive holes (col 6 L 48-53). The interconnecting layer can be a wiring pattern (ie. row and/or column interconnecting lines or the fine/gross interconnects) (col 6 L 63-64). The blocks that include circuit elements drive a picture element (or a display) (col 6 L 48-51).

Jacobsen teaches that the interconnecting layer which later formed interconnecting lines, used for connecting the blocks, is a conductive polymer or a conductive organic compound (col 6 L 55-58, col 8 L 59- col 9 L 4, Fig. 8C).

Jacobsen teaches the present invention but is silent about using a conductive polymer to form the dots in the wells.

Verlinden teaches a laminate structure having ridges formed on a substrate surface. The ridges are filled with an organic conductive polymer such as poly(p-phenylenevinylene) (col 8 L 6-10).

In view of the prior art teachings, one skill in the art would choose poly(p-phenylenevinylene) or a suitable conductive polymer that derived from PPV because PPV is a commonly picked electroluminescent material (col 8 L 22-30).

Allowable Subject Matter

2. Claims 2, 8-9, 22-25 are objected to as being dependent upon a rejected base claim, but would be allowable if incorporate into independent claims. Applicant is suggested to incorporate transistors as the circuit devices in claims 28, 29 and all independent claims. Applicant is also suggested to cancel claim 10, because it is obvious over the prior art of record.


Response to Arguments

3. Applicant's arguments filed on October 18, 2006 have been fully considered but they are not persuasive. The examiner has reconsidered the claims and takes the position that the prior art of record are obvious over the present invention.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Cathy Lam whose telephone number is (571) 272-1538. The examiner can normally be reached on 9am-6pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jennifer McNeil can be reached on (571) 272-1540. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.


Cathy Lam
Primary Examiner
Art Unit 1775

cfl
January 03, 2007